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ABSTRACT

This report describes teacher education programs, courses, and school-based experiences being collaboratively planned and implemented in Texas. The programs represent efforts to eliminate dissonance between what preservice teachers are prepared to do and what they are expected to do as student and inservice teachers. The report describes connections being made in professional development schools (PDSs), illustrating how to expand and overlap the individual circles of influence of preK-12 schools and higher education institutions to improve professional development for preservice and inservice teachers. Section 1 examines various types of collaborative models. Section 2 describes making connections through field-based methods courses, focusing on a model PDS, job-embedded learning, a field-based methods course, collaboration, and connections between courses and cohorts of preservice teachers. Section 3 describes connecting content and methods, connecting methods courses, and connecting with integrative curriculum. Section 4 explains connecting in the broader context (connecting with professional standards, connecting assessment with proficiencies, connecting with state guidelines and national standards, connecting with state and national reform initiatives, connecting with diverse students, connecting with the community and state standards, and establishing connections among Centers for Professional Development of Teachers). Section 5 discusses confronting challenges and complexities involved in making connections (scheduling blocks of courses and reorganizing barriers to university and preK-12 connections). Section 6 discusses the speed with which progress occurs. (Contains 18 references.) (SM)

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Restructuring Texas Teacher Education Series **3**

Connecting to Improve Methods Courses

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CENTERS FOR PROFESSIONAL DEVELOPMENT OF TEACHERS

In 1991 the Texas Legislature passed legislation and authorized funding for the Centers for Professional Development of Teachers (CPDTs; originally called Centers for Professional Development and Technology). The CPDTs are designed to support collaboration among public schools, universities, regional education service centers, and other organizations to improve teacher preparation and professional development.

The purpose of the CPDTs is to totally restructure teacher education on the basis of six principles and goals:

- To restructure teacher preparation programs toward performance-centered, field-based models
- To institutionalize the new programs to include all prospective teachers for the long term, not just pilot groups for a short period
- To integrate technology into teacher preparation and to support its enhanced use in PreK–12 schools
- To prepare teachers to address the needs of culturally diverse student populations
- To extend collaboration among universities, schools, and others concerned with teacher preparation
- To establish staff development opportunities that better address the needs of all educators

In 1992 the state funded the first 8 CPDTs. By 1993 the number had increased to 14, and by 1997, to 30. The CPDTs now comprise 43 universities, 15 regional education service centers, and 113 school districts, affecting more than 300,000 students, 19,000 teachers, and 12,000 preservice teachers. The names and the locations of the CPDT universities appear on the inside back cover of this publication. The commitment by the state legislature has been significant, as indicated by the $46 million that it has provided to date.

ABOUT THIS SERIES

This series of seven reports on restructuring teacher education in Texas was produced by representatives of seven CPDT institutions that received 1997–98 grants for Partnerships for Professional Development of Teachers. The series draws on experiences of all the CPDTs, including both successes and challenges.

The seven reports are as follows:

- Field-Based Teacher Education
- Professional Development Schools
- Connecting to Improve Methods Courses
- Assessment
- Distance Learning
- Cultural Pluralism
- Technology

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INTRODUCTION

The Framework for Educator Preparation and Certification, a working document prepared by the staff of the Texas State Board for Educator Certification (1997), states several important assumptions regarding preparation and licensure of educators, among them:

> All educators must work together to support the "professionalization" of the profession, and assume the responsibilities concomitant with being a professional.
>
> Educator preparation is the joint responsibility of preparation programs and the public schools.
> (p. 1)

These two assumptions are supported almost universally in the literature on school reform, but tend not to be reflected in most preservice and inservice teacher education programs. The failure of educators at all levels to "walk the talk" implied by these assumptions is generating a dissonance between what preservice teachers are prepared to do and what they are expected to do as student teachers and later as first-year teachers (Goodlad, 1997, February 12). With the demands on classroom teachers increasing, the dissonance has intensified, and consequently the calls for reform in teacher education have become more frequent and more forceful. To eliminate or moderate the dissonance, there must be change in the nature of preservice and inservice education. To be effective, this change must be based on the two assumptions just quoted.

However, the dissonance cannot be moderated and the assumptions actualized unless relationships between schools and universities are rethought and restructured. Barth (1996) characterizes the usual relationship between schools and universities as comparable to "parallel play" in a preschool, where children in close proximity play in isolation. In Texas, however, such isolation is lessening as universities and schools forge new relationships through intense and effective collaboration. There is evidence that such collaboration is becoming common in successful teacher education programs and methods courses in Texas CPDTs and at other locations. As a result, the stand-alone, campus-based methods course may soon be a ghost of the past.

This report describes selected teacher education programs, courses, and school-based experiences that are being collaboratively planned and implemented in Texas. Rooted in the two assumptions cited earlier, these programs represent concrete efforts to eliminate or moderate the phenomena noted by Goodlad and Barth. The report describes connections that are being made and illustrates how it is possible to expand and overlap the individual circles of influence of PreK–12 schools and institutions of higher education to improve the professional development of preservice and inservice teachers.

TAKING ADVANTAGE OF NEW OPPORTUNITIES FOR CONNECTIONS

The 21 Centers for Professional Development of Teachers (CPDTs) funded by the state (at a level of $402 million) from 1992 through 1996, and other factors such as the Holmes Group's advocacy of professional development schools (PDSs), have stimulated the development of teacher education programs that are characterized by extensive university-school collaboration and field-based programs. The change in teacher education programs in the 21 CPDTs is reflected in a study by Macy Research Associates (1996), which found increases of 184 percent and 142 percent in field-based course hours in elementary and secondary education programs, respectively, and corresponding decreases of 39 percent and 73 percent in university-based hours.

A growing number of PDSs and other collaborative models are providing clinically based methods courses and are thereby reducing the dissonance between preservice teachers' preparation and inservice teachers' needs and experiences. PDSs are usually partnerships between schools and universities designed to focus on (1) professional learning in the context of sound practice, (2) improvement-oriented inquiry, and (3) educational standard setting. A PDS that is functioning as envisioned by the Holmes Group (1995) "injects school-based and traditional research into teaching and learning in the context of school and education school renewal" (p. 80). A PDS that works creates learning communities of students, teachers, administrators, teacher educators, and parents and "produces more engaged learning and greater understanding among students" (p. 80). The report *What Matters Most: Teaching for America's Future* (National Commission on Teaching & America's Future, 1996) asserts, "Most schools and teachers cannot produce the kind of learning demanded by the new reforms—not because they do not want to, but because they do not know how, and the systems in which they work do not support them in doing so" (p. 5). PDSs and similar models have been developed to create systems that support teachers who have the requisite know-how

in helping preservice and other inservice teachers learn and practice needed skills.

MAKING CONNECTIONS THROUGH FIELD-BASED METHODS COURSES

Many CPDT programs are developing field-based methods courses in PDSs and at other sites. The paths taken in developing clinical experiences for prospective teachers and breaking down the parallel play between higher education and school personnel vary from program to program. The efforts of all of them, though, reflect Zimpher's assumption: "Learning to teach is a multidimensional process that should not be limited to a college campus" (as quoted in Ponessa, 1997, para. 10).

Connecting with a Model PDS

Ramirez Elementary School in Lubbock Independent School District represents a PDS that has an environment conducive to improvement across the career continuum as engagement of both preservice and inservice teachers in professional development activities becomes commonplace. Now in its fifth year as a PDS, Ramirez is a showcase for a number of promising programs.

The primary-grade teachers at Ramirez have collaborated with Texas Tech University faculty members and others to implement the Early Literacy Framework, a curriculum developed at The Ohio State University. In this curriculum several activities support reading: selected books are read aloud to children; small-group instruction is provided through guided reading; early reading strategies are taught through shared reading; and children have time to read independently. Children also engage in group and independent writing activities. The school hosts area educators to observe classroom activities related to the Early Literacy Framework and to participate in staff development activities.

Ramirez teachers in the upper grades have explored ways to integrate science, math, and literacy. The students keep journals and learning logs that provide opportunities to communicate and reflect on the knowledge that they are building and the meaning that it has for them. Also, using a variety of texts, they conduct inquiry projects to seek answers to their questions. They then present their findings in writing.

All Ramirez teachers work for continuous improvement in their practices through Collegial Support Teams (CSTs). Begun in 1993, the teams consist of five to seven teachers who meet weekly to plan curriculum, discuss teaching strategies, and arrange visits to one another's classrooms. Texas Tech student teachers at Ramirez attend team meetings and become members of these professional planning groups.

> ***"Learning to teach is a multidimensional process that should not be limited to a college campus."***

> ***"Ramirez is a model of professionalism and inservice teacher development. Over 70 percent of the teachers have completed one or more Texas Tech graduate courses. In addition, Ramirez teachers have participated in and directed numerous workshops. Teachers are involved with Texas Tech faculty members in experimenting with research-based practices and conducting action research."***

Ramirez is a model of professionalism and inservice teacher development. Over 70 percent of the teachers have completed one or more Texas Tech graduate courses. In addition, Ramirez teachers have participated in and directed numerous workshops. Teachers are involved with Texas Tech faculty members in experimenting with research-based practices and conducting action research. Graduate courses on the Ramirez campus organized around action research projects have led to collaborative inquiry by teachers and university faculty members in areas such as portfolio assessment, multi-age grouping, and implementation of interactive writing in kindergarten. This inquiry approach (Cochran-Smith & Lytle, 1993) has blurred the distinctions between the domains of expertise of school and university personnel and is reducing the separation of theory and practice that so often occurs. These and other practices allow preservice teachers who complete fieldwork with Ramirez teachers to learn in an environment where practice complements rather than competes with educational theory and research.

The current teacher education program at Texas Tech was jointly conceived by Texas Tech faculty members and PDS teachers, and the continuing refinement of the program is collaboratively negotiated. The expertise of Ramirez faculty members in this process has been invaluable. Texas Tech faculty members meet each semester with the principal and the teachers who mentor preservice teachers to plan clinical experiences. As a result, Texas Tech preservice teachers observe and work with teachers who exhibit theory-based practice and a high level of professional competence.

A classroom at Ramirez is reserved for use by Texas Tech faculty members. A social studies methods course conducted at Ramirez illustrates the collaborative nature of clinical experiences in this PDS. Preservice teachers in the course were paired with students, or "buddies," in the fifth-grade class taught by Delma Gomez. A unit called Civil Wars Perspectives involved the fifth graders in a study of the American Civil War, the conflict in Bosnia, and other wars. For the American Civil War study, all the children chose topics to investigate. As their inquiry progressed, some joined with classmates in pairs or small groups. The preservice teachers worked with their "buddies" on the inquiry project and kept a journal documenting both their own learning and that of their buddies. Gomez, a particularly talented social studies teacher, was an excellent model for the preservice teachers. She participated in the methods class, sharing her perceptions about teaching, her rationale for many classroom decisions, and information on how she had planned the civil war unit and was using it to achieve

desired learning outcomes. Later the preservice teachers prepared a set of questions and interviewed the fifth graders to assess their reactions to the unit and to gain more insight into what they had learned. The preservice teachers analyzed the resulting data and shared their findings with Gomez. The involvement with Gomez gave the preservice teachers extended opportunities to grasp the importance of teacher knowledge in planning and implementing a lesson.

Connecting with Job-Embedded Learning

At Ramirez, as well as at many other clinical sites in Texas, preservice teachers are involved with the school as a whole rather than being assigned primarily to one teacher and one classroom. They thus have extended opportunities to gain practical knowledge. Kessels and Korthagen (1996), in advocating the supremacy of practical knowledge, contend that teacher education programs should provide "concrete situations to be perceived, experiences to be had, persons to be met, plans to be exerted, and their consequences to be reflected upon" (p. 21). Clearly, Ramirez provides such opportunities. Preservice and inservice teachers at Ramirez and similar schools also have opportunities for job-embedded learning, that is, learning linked to "immediate and real-life problems faced by teachers" (Sparks & Hirsh, 1997, p. 52).

Shaping a Field-Based Methods Course

Robert McDonald's experiences at Southwest Texas State University provide insight into the problems involved in integrating methods courses and clinical experiences. Southwest Texas State schedules methods courses for preservice elementary school teachers, whom they call interns, in a nine-hour block (a science methods course and two reading courses). For clinical experiences, the university assigns interns to a school two days a week. In the early stages of the program, McDonald encountered problems that are typical in Texas. For a variety of reasons, science was not taught regularly in the schools to which the interns were assigned. Further, when it was taught, students were involved in reading and writing about science but not "doing science." Initially, interns modeled the lessons that they taught in these schools after those taught by their science methods professors. As described by McDonald, many of these lessons were "ugly" because of factors ranging from the inexperience of the interns to the indifference of their mentors. To address this problem, a team of classroom teachers, professors, and interns began using a demonstration model in which the classroom teachers identified areas of study and the professors and the interns designed appropriate lessons. The interns then taught these demonstration lessons to small groups of students in selected classrooms.

During the fall 1996 semester, each K–6 campus involved in the program dedicated a science room for use by the professors and the

> ***"As the program matured, common interests emerged, goals and needs coalesced, relationships changed, and authority was shared."***

interns. At this stage of the program, the professors began to provide weekly demonstration lessons for the interns, a few teachers, and classes of elementary students. This approach soon became popular as more and more teachers signed up to bring their classes to the lessons. The lessons also served as a type of "backdoor" staff development for the teachers.

The ownership of the demonstration lessons abruptly changed one week, however, as McDonald came to the school to post the sign-up sheet. The interns had already posted their own sheet, signaling their intention to take over the sessions. The increased involvement and influence of the interns changed the nature of the program and their experiences.

As the demonstration lessons increased in popularity, teachers and students noted with some dismay the lulls when interns were not present (between semesters and at other times). This led to teacher-initiated efforts to institutionalize the demonstration lessons so that students would have opportunities to study science regularly. It also resulted in an increased sense of community as teachers and professors collaborated to plan and design curriculum in which the needs of both K–6 students and interns were considered.

Ending the Parallel Play

The direction and the diffusion of authority in this collaboration changed as the program developed. Initially, decisions about the preservice teacher education program were made separately from decisions regarding the K–6 science curriculum. In the pyramid of authority representing the teacher education program, higher education professors were at the apex, and decisions were diffused to preservice and inservice teachers at the base. In the pyramid of authority over curriculum decisions, teachers and administrators were at the apex, and preservice teachers and higher education professors were at the base. The spheres of influences of these separate domains seldom overlapped. However, as the program matured, common interests emerged, goals and needs coalesced, relationships changed, and authority was shared. As spheres of influence developed and overlapped, the parallel play came to an end.

Achieving Connections

The experiences of Linda Ellis and her colleagues at Stephen F. Austin State University provide another illustration of the importance of creating a community of learners and changing patterns of influence. The views of PreK–12 educators on good practice often differ from those of professors. To achieve an environment of consistency for preservice elementary school teachers at clinical sites, a faculty member

from Stephen F. Austin met once a week in a study group with 15 PDS teachers to discuss the readings that teacher education students were studying in their language and literacy courses. The teachers in this pilot program also attended conferences, served as mentors to teacher education students, and studied professional literature. Further, they joined teacher education students and university faculty members in considering issues involved in implementing state-of-the-art literacy programs. As learning occurred across the career continuum and as collaboration increased, curricula and instructional strategies changed, and the distinctions between the desired and the actual experiences of teacher education students in their methods courses and in classrooms lessened.

Connecting Courses and Cohorts of Preservice Teachers

Many programs schedule several courses in a block that students complete as a "cohort," or group. At the University of Texas–El Paso, courses in elementary science methods, mathematics methods, diagnostic reading, and physical science are blocked. Sally Blake and David May team-teach the elementary science methods part, emphasizing and modeling nontraditional methods. For example, they use "jigsaw cooperative learning." This strategy relies on division of labor and expert groups to develop skills and knowledge. Blake and May use it to orient students not only to the strategy itself but to different curriculum approaches. In one activity, expert groups of four or five students review curriculum materials available to teach concepts related to force. One expert group searches for curriculum materials at various sites on the World Wide Web, another reviews local curriculum materials, a third refers to science textbooks, and a fourth uses laptop computers to gain access to materials and to answer questions provided by Blake and May. Individuals from each expert group return to their respective home groups and share the information gained in the expert group. Each home group uses the knowledge and the resources made available by the experts to develop lessons concerned with force. The preservice teachers then teach many of these lessons in classrooms, where they spend 24 hours a week while completing the block of courses. Blake and May collaborate with biology and physical science professors to link content and methods.

The Houston Consortium, which involves four universities in a CPDT, schedules a 15-semester-hour elementary education block that includes four courses: curriculum, instructional design, and evaluation; models of teaching and classroom management; children with diverse needs; and instructional strategies and materials. The cohort of students in this block complete a wide range of clinical experiences while spending at least 250 clock hours in schools. They then student-teach

> *"There is a growing awareness of the need to develop greater coherence in teacher education programs by integrating experiences in the subject-matter disciplines with courses in pedagogy."*

for a semester and take an accompanying seminar in evaluation and analysis of teaching.

Preservice secondary school teachers in the Houston Consortium complete 200 clinical hours during a 12-semester-hour block made up of courses in curriculum, instructional design, and evaluation; models of teaching and classroom management; cultural diversity; and learning theory. During the following semester, they do their student teaching (6 semester hours) and take a course in instructional strategies and materials in their respective teaching fields.

Cohorts of preservice elementary school teachers at Texas Tech University are scheduled in a block of courses for each of three semesters. During the first semester, they complete courses in children's literature and managing learning environments. In the second semester, they enroll in a six-hour language and literacy block. In their third semester, students take a four-course block of methods in mathematics, science, social studies, and content-area reading. All courses have built-in clinical experiences that increase in terms of time committed and responsibilities required as students progress from semester to semester. The senior year essentially is a professional year with four field-based courses during the first semester and student teaching and a capstone course during the second semester. Course work and fieldwork assignments are guided by the Learner-Centered Proficiencies mandated by the Texas Education Agency, described later in this report. As part of the capstone course, students prepare a professional portfolio that documents their progress in achieving these proficiencies during the entire program.

CONNECTING FOR COHERENCE AND INTEGRATION

Connecting Content and Methods

There is a growing awareness of the need to develop greater coherence in teacher education programs by integrating experiences in the subject-matter disciplines with courses in pedagogy. Wegner (1996) argues that the gap between subject-matter courses taught in colleges of arts and sciences and methods courses taught in colleges of education is one source of dissonance for teacher education students. In response to this problem, a number of universities bring instructors from both kinds of colleges together to exchange ideas. At Sam Houston State University, professors in the social sciences and in education are working with mentor teachers to revise courses in the social sciences required for licensure. At Texas Tech University, mathematics professors have worked closely with mathematics methods instructors to create complementary courses of study. Also, teachers from one of the College of Education's PDSs assist in developing syllabi for mathe-

matics courses taken by teacher education students. This growing and continuing collaboration in mathematics has resulted in courses that are aligned with the standards of the National Council of Teachers of Mathematics and commonly feature cooperative learning and the use of technology during class sessions.

The gap between methods and subject-matter courses also has narrowed at West Texas A & M University, where preservice elementary school teachers complete four science courses that integrate the study of physical science, earth science, chemistry, and physics with teaching methods. The themes that provide a framework for integration are systems and structures, energy transformations, changes over time, and interactions. Teaching strategies such as inquiry and cooperative learning are emphasized in each course.

Connecting Methods Courses

Students in the elementary education program at the University of Houston complete separate methods courses in mathematics, science, social studies, and reading and language arts. During the 1996–97 school year, instructors in a pilot program collaborated to integrate these subjects rather than teach them as discrete courses. A cohort of students, four professors, and a site supervisor were field based for the two semesters, during which the students planned and taught integrated lessons in elementary schools and used the experiences as opportunities for reflection. As part of the assessment, they created portfolios that included a component concerned with documenting proficiencies related to developing and teaching an integrated lesson.

In the pilot program, the four professors met regularly to plan instruction, identifying common themes (e.g., problem solving, assessment, cooperative learning, inquiry-based instruction, the use of technology, and discovery learning) and devising complementary ways to address them across the subject areas. Nancy Williams, a member of the pilot team, described the planning and implementation process as an "instructional dance." Initially, as each team member identified the special areas of his or her subject, the member expressed concern about "losing" content in an integrative approach. However, as the pilot program progressed over two semesters, the team found that because of the commonalities that surfaced, little was lost and much was gained. Student input and feedback were important parts of altering and adjusting the program as it was implemented. The instructors reported that their close communication was key to the pilot program's success.

In the 1997–98 school year, the pilot program will serve as a prototype for integrating subject-matter areas in the University of

Houston's regular elementary teacher education program. Some incoherence during the pilot program between what students experienced in their courses and what they observed in classrooms will be addressed through increased involvement of practicing teachers.

Connecting with Integrative Curriculum

When mentor teachers plan and use lessons that are organized around specific themes, preservice teachers have opportunities to observe and then teach integrative lessons. In a project funded by local foundations, teachers from selected schools who were enrolled in graduate courses at Texas Tech University worked on connecting literacy development with science and social studies content areas. A third-grade teacher at Ramirez Elementary School, for example, designed a unit on colonial America that required her students to pose, investigate, and write responses to questions that emerged from their readings on this topic during time usually allotted for reading, English, and language arts. Simultaneously the art teacher engaged the children in a study of colonial painters, and the children then wrote critiques of their own art work. The teachers from Ramirez who were enrolled in the course also served as mentors to Texas Tech preservice teachers. As a result, the preservice teachers were able to observe and work with teachers planning and implementing an integrated unit.

In the West Texas Environmental Project for Integrative Studies in Science and Mathematics, funded by the Amarillo National Resource Center for Plutonium, Richard Powell of Texas Tech University engages PreK–12 teachers in studies of environmental problems and creation of integrative, theme-based curricula. The primary focus is water resources and sustainability. Additional themes include population growth in semi-arid land, land use and agricultural practices, hazardous substances, and nuclear waste. As well as participating in campus-based sessions, the inservice teachers conduct field studies that entail travel throughout the South Plains and Panhandle of Texas, and into New Mexico. They test water, interview officials involved in management of water resources, confer with farmers and ranchers, and complete research in various communities. They then use these experiences and the knowledge that they gain to develop units and lessons that bring together content as it fits in real life.

Eisenhower Professional Development grants administered by the Texas Higher Education Coordinating Board have funded numerous programs that focus on the integration of two or more subject areas. For example, Linda Crow of the University of Houston–Downtown directs a project for 9th- and 10th-grade science teachers that emphasizes integrated or coordinated science. In the project, inservice teach-

ers develop and use activities that focus on major scientific concepts and follow an instructional sequence flowing from the concrete to the abstract. Participants also develop integrated science activities and courses designed to meet the requirements of the Texas Essential Knowledge and Skills (TEKS) in science.

Doing Math the Science Way, directed by Sandra Cooper and Julie Thomas of Texas Tech University, is another Eisenhower-funded project for inservice K–6 teachers that emphasizes integrative studies. In this two-year project, teachers focus on mathematics concepts, science-related skills, and instructional strategies. During summer 1997 they integrated geometric concepts related to triangles, quadrilaterals, regular polygons, circles, transformations, tessellations, fractals, prisms, and cylinders with science applications such as light, engineering bridges, chemical bonding, cycles, geometric patterns in nature, rainbows, and potential energy. Teachers used TI-92 calculators, bounced balls, built straw bridges, and completed many other activities. During the 1997–98 school year, they will develop Doing Math the Science Way portfolios and continue to meet monthly for additional study of geometry and science applications.

> ***"What teachers know and can do makes the crucial difference in what children learn."***

CONNECTING TO THE BROADER CONTEXT

Connecting with Professional Standards

The authors of *What Matters Most: Teaching for America's Future* (National Commission on Teaching & America's Future, 1996) state, "The school reform movement has ignored the obvious: What teachers know and can do makes the crucial difference in what children learn" (p. 5). The report emphasizes, "To be effective, teachers must know their subject matter so thoroughly that they can present it in a challenging, clear, and compelling way. They must also know how their students learn and how to make ideas accessible so that they can construct successful 'teachable moments'" (p. 6). The report asserts that the greatest priority must be given to "reaching agreement on what teachers should know and be able to do in order to reach high standards" (p. 67). Calling for the formation of professional standards boards in each state, the report concludes, "Standards for teaching are the linchpin for transforming current systems of preparation, licensing, certification, and ongoing development" (p. 67).

A growing number of states have identified proficiencies for emphasis in preservice and inservice teacher education programs. In Texas, five Learner-Centered Proficiencies (State Board of Education, 1995), which define "what teachers and administrators must know and be able to effectively demonstrate so that all children have access to a

Exhibit 1
Proficiencies for Teachers in Learner-Centered Schools

I. Learner-Centered Knowledge

The teacher possesses and draws on a rich knowledge base of content, pedagogy, and technology to provide relevant and meaningful learning experiences for all students.

II. Learner-Centered Instruction

To create a learner-centered community, the teacher collaboratively identifies needs; and plans, implements, and assesses instruction using technology and other resources.

III. Equity in Excellence for All Learners

The teacher responds appropriately to diverse groups of learners.

IV. Learner-Centered Communication

While acting as an advocate for all students and the school, the teacher demonstrates effective professional and interpersonal communication skills.

V. Learner-Centered Professional Development

The teacher, as a reflective practitioner dedicated to all students' success, demonstrates a commitment to learn, to improve the profession, and to maintain professional ethics and personal integrity.

Note. From *Learner-Centered Schools for Texas: A Vision of Texas Educators* (pp. 3-7), by State Board of Education, 1995, Austin: Texas Education Agency.

quality education" (p. vii), provide a framework for the development of teacher education programs. See Exhibit 1. The proficiencies also are becoming the basis for an emerging accountability system.

These proficiencies have been important in providing direction for educator preparation statewide. Their importance will escalate if they become the curricular basis for the preparation and continuing professional growth of educators, as has recently been proposed.

Connecting Assessment with Proficiencies

Increasingly, portfolios used to assess the achievement of teacher education students in methods courses are being structured around the Learner-Centered Proficiencies. For example, the elementary teacher education program at Texas A & M University, Commerce, has aligned portfolio assessment in methods courses with the assessment practices that students observe in the field. Preservice teachers create portfolios organized around the Learner-Centered Proficiencies as part of the assessment procedure in methods classes, collecting artifacts (samples of students' work, lesson plans, photographs, journal entries, etc.), select-

ing those that demonstrate their progress in attaining the proficiencies, and reflecting on their choices. Through the portfolio they assess the quality of their work, celebrate their professional growth, and evaluate that growth. For fieldwork these preservice teachers are placed with teachers in K–2 classes in Plano Independent School District schools. The Plano school district has received permission from the Texas Education Agency to use portfolio assessment exclusively in K–2 classes. As a result, teacher education students have a continuing opportunity to talk with teachers about the rationale for using portfolios, to observe children building portfolios, and to draw comparisons between their use of portfolios as methods class students and their use of portfolios as student teachers. University instructors and classroom teachers, in their monitoring function, also discuss the benefits and the problems associated with portfolio assessment across different levels of education.

Steve Rakow (1997) and his colleagues at the University of Houston–Clear Lake have developed a portfolio assessment system based on seven standards that are related to the state's five Learner-Centered Proficiencies. Portfolios serve as a major component of a summative evaluation of "interns" during a two-semester sequence of the program. Interns compile their portfolios with the guidance of mentor teachers and university faculty members. For each of the seven standards, a scoring rubric describes three levels of performance, from novice to experienced. To accommodate the differences in experience between first- and second-semester interns, the rubric tracks each level of expectation through three stages: Experiential, Application, and Integration. In the Experiential Stage, occurring early in the sequence of courses and related field experiences, interns establish the knowledge and the affective base for professional growth. In the Application Stage, interns apply knowledge to planning and teaching activities in field-based settings. The Integration Stage is demonstrated during extended independent responsibility in a teaching internship. For an illustration of how the levels of the three stages for one standard are sequenced in a rubric, see Exhibit 2.

Interns in this program must use lesson plans, videotape segments, and other artifacts to document how they have met each standard. They also must explain why a particular artifact provides evidence that they have achieved the standard. This requirement causes the interns to reflect on their experiences.

During the first semester, the university member of the mentor team reviews and evaluates an intern's portfolio. During the second semester, a site assessment team conducts the evaluation. Thus professors

> ***"Increasingly, portfolios used to assess the achievement of teacher education students in methods courses are being structured around the Learner-Centered Proficiencies. For example, the elementary teacher education program at Texas A & M University, Commerce, has aligned portfolio assessment in methods courses with the assessment practices that students observe in the field."***

Exhibit 2
A Sample of Scoring Rubrics

Standard 5: Classroom Management and Organization

The teacher is a leader and a team member of a learner-centered community in which an atmosphere of trust and openness produces a stimulating exchange of ideas, encouragement of risk-taking, and feelings of mutual respect. As a coach, the teacher observes, evaluates, and changes direction and strategies whenever necessary. As a facilitator, the teacher helps students link ideas in the content area to familiar ideas, to prior experiences, and to relevant problems. As a manager, the teacher effectively acquires, allocates, and conserves resources. For students to work in a secure, predictable environment, the teacher plans and establishes a fair and workable classroom routine by encouraging self-directed learning and by modeling respectful behavior. As a result, learners work independently and cooperatively in a positive and stimulating learning environment in which they are self-disciplined and motivated.

Levels	Stages		
	Experiential	**Application**	**Integration**
1	Demonstrates knowledge of classroom management techniques and related learning principles for creating a secure and predictable learner-centered community.	Plans classroom management techniques and relates them to a conceptual framework for creating an optimal learning community.	Creates a secure and predictable environment that implements appropriate classroom management techniques and motivational strategies, generating corrective measures for inappropriate or ineffective applications.
2	Demonstrates knowledge of learner-centered principles of motivation, discipline, and classroom management at a sufficient level to pass the ExCET test.	Plans a fair and workable classroom routine. Identifies, develops, and uses learning and classroom management resources with individual students or small groups.	Creates a secure and predictable environment that models respectful behavior and encourages self-directed learning while independently facilitating learning.
3	Demonstrates knowledge of learner-centered principles of motivation, discipline, and classroom management at a sufficient level to exceed the passing level of the ExCET test.	Plans learner-centered instruction, management plans, and assessment utilizing appropriate resources.	Demonstrates sustained independent ability to integrate varied management strategies appropriate for students in a variety of settings. The environment facilitates both independent and cooperative learning to maximize student success.

Note. From *Portfolio Assessment in Preservice Teacher Education*, by S. J. Rakow, 1997, June, Paper presented at the State CPDT Retreat, Dallas. © 1997 by S. J. Rakow. Reprinted with permission.

and teachers collaborate in providing extensive feedback to interns. In the process they grow professionally, interns receive richer feedback, and a significant connection between university- and site-based preparation of preservice teachers occurs.

Connecting with State Guidelines and National Standards

Guidelines describing what preservice teachers need to know and be able to do in certain academic areas also are emerging from state and national organizations with a subject-matter focus. TEKS provides additional direction, as do national standards in several key academic areas. In Texas the movement to better define the knowledge base needed by science and mathematics teachers has been supported by the Texas Statewide Systemic Initiative (Texas SSI), which is funded by the National Science Foundation. The Texas SSI has involved mathematicians, teachers, and mathematics educators in developing guidelines (Texas SSI, 1996) for preparing preservice teachers in mathematics. Janie Schielack of Texas A & M University, who codirects this project, has coordinated efforts to develop mathematics courses that reflect these guidelines for both junior- and senior-level colleges and universities. Fourteen institutions of higher education recently received incentive grants to develop mathematics courses based on the guidelines. Schielack reports that increasingly professors in mathematics are collaborating with mathematics methods instructors and classroom teachers to incorporate instructional methods such as cooperative learning, use of manipulatives, and technology into mathematics courses. Gary Harris, mathematics professor at Texas Tech University, notes that the Texas SSI is part of a broader trend of reform in the teaching of mathematics on the college level. According to Harris, because of the availability of computers and calculators to perform mathematical calculations quickly and accurately, mathematics professors are rethinking the content of mathematics courses for all students. The result is a shift in emphasis from learning routine operations to a deeper, more conceptual approach. This has implications for the teaching of mathematics at all levels of schooling.

The Texas SSI also is developing a vision and six major guidelines for preparing K–6 teachers to teach science. These guidelines, which were refined and strengthened through a process of consensus and expert review during summer 1997, give more emphasis to pedagogy than the mathematics guidelines do. Thirteen institutions of higher education have received incentive grants in 1997 to plan collaborative preservice programs that are based on the science guidelines and designed to meet both the science and the pedagogical needs of preservice elementary school teachers. Funded programs must be developed and implemented through the collaborative efforts of professors of science and related fields, professors of education, and classroom teachers. In programs such as the one at Texas Tech University, personnel from the Museum of Texas Tech University and from the Science Spectrum, which features interactive science exhibits and scheduled learning experiences for children, also are involved.

"Guidelines describing what preservice teachers need to know and be able to do in certain academic areas also are emerging from state and national organizations with a subject-matter focus."

> ***"Students in this biology course identify a research question, conduct a literature review, develop an experimental design, conduct the research, and write a paper that would merit review for publication in the journal of the Texas Academy of Science or review for presentation at the academy's annual meeting."***

Sandra West, a science educator at Southwest Texas State University in San Marcos, focuses on the professional development standards articulated in *National Science Education Standards* (National Research Council, 1996) in Biology 4408, Secondary School Science Processes and Research, which is designed for prospective biology teachers. She places particular emphasis on Professional Standard A, which states that teachers of science should have opportunities to "learn science content through the perspectives and methods of inquiry" (p. 4). Students in this biology course identify a research question, conduct a literature review, develop an experimental design, conduct the research, and write a paper that would merit review for publication in the journal of the Texas Academy of Science or review for presentation at the academy's annual meeting. West has worked with her colleagues in the Department of Biology to arrange needed research experiences for her students.

In addition to using *National Science Education Standards*, West draws on *Benchmarks for Scientific Literacy* (American Association for the Advancement of Science, 1993) in framing this course and students' assignments. For example, the preservice science teachers in the class must work in teams of two to plan a lesson that leads to an understanding of the biological concept of natural selection as framed by the standards and the benchmarks. Teams collaborate with West to prepare the lessons and accompanying assessment procedures. These lessons are taught and videotaped in local middle schools. The videotapes are critiqued and shared among teams. This leads to revision of the lessons and provisions for reteaching them more effectively. The completed lessons are comprehensive, containing background information on state and national standards, a summary of students' misconceptions, assessment materials, handouts for students, transparencies, and World Wide Web site addresses. The teams share their final lesson plans through an exchange of computer disks.

Currently, according to Mickey Hollis of the University of Houston the standards of the National Council of Teachers of Mathematics, the mathematics objectives of the Texas Assessment of Academic Skills (TAAS), the mathematics competencies mandated by TEKS, and the involvement of K–6 teachers are powerful contextual factors influencing the mathematics methods course at Hollis's university and others. (TAAS mathematics scores have increased in the schools that are field sites for University of Houston elementary education courses.)

Hollis also indicates that the field-based nature of this methods course allows theory to be studied in the context of practice. Instructors in a regularly scheduled seminar present selected mathematics concepts and skills and the theory that supports their curricular and instructional decisions. The mathematics methods instructor periodically conducts a demonstration lesson with K–6 students during the seminar. Mentor teachers arrange and then supervise opportunities for preservice teachers to teach mathematics, or an integrated lesson with a mathematics component, to small groups of K–6 students throughout the semester and to an entire class at least once a semester during the methods course. Preservice teachers are encouraged to be careful observers of children and to evaluate the understandings that the children gain from the lessons. After their teaching experiences, preservice teachers discuss their observations and reactions and reflect on their learning during the seminar.

Collaboration and communication are central to the success and the continuation of this and similar field-based programs. The professors and the preservice teachers learn more about TEKS, TAAS, and the daily perceptions and professional lives of K–6 teachers. The goals of the K–6 teachers become the goals of the preservice teachers as they work to coordinate their clinical experiences with the teachers' instructional plans. Involvement in planning, observing, and critiquing the experiences of the preservice teachers brings the inservice teachers into the professional responsibilities of teacher education. The circle of influence broadens as roles and responsibilities coalesce.

Carol Stuessy of Texas A & M University teaches a school-based, integrated methods course in elementary school mathematics and science. Each week preservice teachers spend one hour planning with a classroom teacher for a two-hour teaching assignment. They spend an additional two hours in debriefing and reflection, consideration of standards-based teaching, and modeling of mathematics lessons that reflect the goals and the spirit of the standards developed by the National Council for Teachers of Mathematics. They also participate in varied district-organized professional development programs.

Connecting with State and National Reform Initiatives

Academics 2000 funding has been used in Texas to establish a Social Studies Center for Educator Development at Texas A & M University. Its purposes are as follows:

- To provide educators with a deep and thorough knowledge of social studies as exemplified in TEKS

> ***"In January 1996 Texas Governor George W. Bush established the goal that all Texas students shall read on grade level by the end of grade 3."***

- To increase educators' access to high-quality teaching models
- To establish a coordinated system of teacher education and professional development, planning, evaluation, and follow-up

A Reading and English Language Arts Center for Educator Development established at the University of Texas at Austin has the same functions as the social studies center except that there is a particular emphasis on beginning reading for all students, including those in LEP, bilingual, special education, and advanced programs. Both centers are in their early stages.

In January 1996 Texas Governor George W. Bush established the goal that all Texas students shall read on grade level by the end of grade 3. In response to this goal, the Texas Education Agency published *Beginning Reading Instruction*, which describes the components and the features of a research-based reading program. It has stimulated much dialogue among Texas educators. Also, the Texas Reading Initiative was formulated and funded as part of the Academics 2000 program. Ninety-one Texas school districts and regional service centers received $12.3 million in the third cycle (the current one) of reading improvement grants. The funded programs represent a variety of theoretical and curriculum perspectives. Portfolio assessment, integrated thematic instruction, Reading Recovery, Project Read, and Spaulding Reading Enrichment are among the varied emphases supported.

The funded programs focus primarily on professional development for inservice teachers, but preservice teachers may be included. The Academics 2000 program funded in the Lubbock Independent School District focuses on schools serving at-risk students and is built on school-university collaboration. Funds will be used to implement in K–2 classrooms the Early Literacy Framework developed by researchers at The Ohio State University. The grant allows teachers to take graduate courses at Texas Tech University specifically designed to support implementation of the framework. Already, teachers have completed courses in early literacy theory and practice, writing development in young children, children's literature, and literacy assessment. The benefits from these funded graduate courses have spread as other inservice teachers and Texas Tech preservice teachers have learned about early literacy through conferences and workshops conducted by participants in the courses. The classrooms of teachers involved in the project serve as clinical sites for Texas Tech preservice teachers. Texas Tech faculty worked closely with the Lubbock school

district in designing the program, writing the proposal, and implementing the program. In doing so, the space occupied by K–6 and university educators on the professional continuum was extended and enriched.

Connecting with Diverse Student Populations

Teacher education programs in Texas are responding to the growing diversity in the state's PreK–12 student population. The mandated Learner-Centered Proficiency "The teacher responds appropriately to diverse groups of learners" is a driving force in shaping teacher education courses and experiences. A major criterion for selecting PDSs, which are emerging as important elements of many Texas teacher education programs, is the presence of a diverse student population. Involvement with these PDSs provides preservice teachers with experiences in designing and delivering instruction for diverse student populations. In addition, specific assignments and projects offer needed focus and enhancement. Sandra Cooper of Texas Tech University assigns preservice elementary school teachers enrolled in a mathematics education course to observe a child with special needs and to

1. describe the specific behaviors, problems, and challenges of the child;
2. explain how the teacher takes the child's needs into account in planning lessons, assigning homework, and altering curriculum; and
3. project what adaptations they would make to meet the child's needs.

At Texas A & M University, Commerce, understanding diverse learners is a major goal of the elementary education program. Preservice teachers spend two field-based semesters in elementary school classrooms. During the first semester, they complete an educational psychology course that focuses on diverse cultures and learners. During the following semester, they take a course on inclusion. Describing this program, Martha Foote says that the preservice teachers are able to connect theory and practice, learning the "why" along with the "what" as they observe and interact with a variety of learners.

At the University of Houston, teacher educators such as Kip Tellez focus their teaching and research on multicultural education. Preservice teachers are placed in urban schools whose student body is predominantly Hispanic. The preservice teachers must complete a study of the culture in which they are immersed during their clinical experiences.

Preservice teachers at Sam Houston State University participate in a community education program that engages parents of linguistically diverse students in their children's learning. Teacher education students and university professors plan and conduct Saturday English-as-a-second-language classes and computer training sessions for parents and other family members.

Teacher education students at Texas Tech University have multiple field experiences before student teaching. Working with diverse student populations is an important aspect of those experiences. Ramirez Elementary School, a major site for Texas Tech fieldwork, serves a diverse population of students. Sixty-five percent are Hispanic, 25 percent African-American, 5 percent Asian, and 5 percent non-Hispanic. Ninety-five percent of the students are eligible for a free or reduced-price lunch. Teacher education students are able to work with teachers using suitable, research-based pedagogy within a challenging, appropriate curriculum for a diverse student body that is achieving academic success.

Connecting with the Community and State Standards

A course designed and taught by Billy Askins of Texas Tech University provides an example of how to use contextual influences effectively to shape instruction in methods. In 1989 TAAS, a PreK–12 accountability program, was expanded to include social studies. The TAAS social studies test is based on 10 state-mandated objectives. In Askins's methods course for secondary school social studies, the preservice teachers form cooperative groups to analyze the importance of teaching each TAAS objective and to design activities related to it. They use a TAAS test generator to develop multiple-choice questions related to instructional materials designed to attain specific TAAS social studies objectives. Also, in recognition of the role that all teachers have in improving students' reading skills, these preservice teachers learn specific models for teaching reading comprehension in social studies. Further, they learn to teach various types of writing appropriate in the social studies. The community context is emphasized in collaboration with the Museum of Texas Tech University, which includes the Ranching Heritage Center and the Lubbock Lake Landmark. The preservice teachers complete museum tours and activities that are closely aligned with the Lubbock school district's social studies curricula for grades 1, 2, 4, 5, 6, and 7, the state-mandated essential elements, and TAAS objectives. These activities also help students relate to the historical, social, and natural heritage of the South Plains region. Some of the preservice teachers respond to the invitation to serve as museum docents.

"Teacher education students at Texas Tech University have multiple field experiences before student teaching. Working with diverse student populations is an important aspect of those experiences."

Since the fall 1994 semester, this course has been taught on the campus of Hutchinson Junior High School, which is one of the PDSs in the Lubbock school district. Mentor teachers at the school are key partners in this field-based course, orienting the preservice teachers, sharing lesson plans, explaining and modeling discipline-management plans, and phasing their protégés into the professional life of the school. Collectively these and other activities are designed to help preservice teachers acquire the 15 competencies specified in the *Framework for Educator Preparation and Certification* (State Board for Educator Certification, 1997), which is the basis for the Examination for the Certification of Educators in Texas (ExCET, a proficiency test that teachers must pass to meet licensure requirements).

Establishing Connections Among CPDTs

Since the approval of the first Texas CPDTs in 1992, CPDT personnel have responded to the need to be connected to one another by establishing a statewide network. CPDT network meetings are held in conjunction with other teacher education state conferences. A summer institute for CPDT personnel and for educators at institutions interested in becoming CPDTs has been held annually for the last five years.

In 1997 the State Board for Educator Certification funded a program to allow existing CPDTs to work collaboratively with other institutions of higher education in the early stages of gaining approval as CPDTs. Each of the eight CPDT recipients of these partnership grants is working collaboratively with one or more institutions of higher education to develop restructured teacher education programs. The eight CPDTs also work together on issues and problems that emerge statewide.

Interactions among faculty members in different CPDT programs has resulted in connections that focus on field-based methods courses. For example, Texas Tech University preservice secondary school teachers complete field-based block courses that are specific to their teaching field. At Southwest Texas State University, the secondary school field-based blocks are interdisciplinary, involving individuals from several teaching fields. Professors from these two universities have engaged in extensive dialogue about this major organizational difference. The discussions of the merits of each approach have been geared not to persuade colleagues from the other university to change, but to inquire into and reflect on the effects of the differing programs. The dialogues also have led to joint presentations at state and national conferences and the preparation of manuscripts.

CONFRONTING CHALLENGES AND COMPLEXITIES INVOLVED IN MAKING CONNECTIONS

Scheduling a Block of Courses

Field-based teacher education courses present challenges in regard to scheduling, professorial assignments, lines of authority, and differentiation between campus- and field-based instruction.

Flexibility in regard to assignments and travel requirements for students and faculty, scheduling of clinical experiences, and use of PreK–12 campus space increased at Texas Tech University when field-based courses were scheduled in three-hour blocks and cohorts of students were registered in two or more courses per semester. Scheduling conflicts between subject-matter courses and education courses, and the amount of travel to PreK–12 campuses, decreased greatly. The variety, the intensity, and the duration of clinical experiences increased. The scheduling of both morning and afternoon blocks increased the availability of space for teacher education courses in PreK–12 schools. Extended time on PreK–12 campuses increased opportunities for more intense and varied clinical experiences.

To lessen scheduling conflicts, Southwest Texas State University has designed a program that allows preservice secondary school teachers to complete field-based blocks in either of two semesters and to schedule either a Monday-Wednesday or a Tuesday-Thursday block in one of several school districts.

Without careful planning, professors teaching field-based courses may find their time eroded by travel and assignments at several PreK–12 campuses. At Texas Tech many faculty members prefer to teach two courses in a four-course block to minimize travel and team meetings and to maintain continuity with a cohort of students and within a faculty team. However, membership on several teams and responsibilities at several schools become necessary if specialists in fields such as reading, mathematics, and social studies stay within their specialization and teach only one course in a block. In grouping courses in a block, assigning professors to teams, and scheduling specific teams into schools and with teachers, it also is important to maintain semester-to-semester continuity.

As noted elsewhere in this report, the lines of authority and the spheres of influence typically are quite distinct when decisions about PreK–12 curriculum and instruction and decisions about teacher education programs are made. The collaboration of PreK–12 educators and teacher educators cited in this report has resulted in the lines of authority and the spheres of influence becoming more diffuse and overlapping.

❝*The collaboration of PreK–12 educators and teacher educators cited in this report has resulted in the lines of authority and the spheres of influence becoming more diffuse and overlapping.*❞

Moving a teacher education course from a university to a PreK–12 setting conveys no advantages if teacher education students do not have increased involvement with students and teachers. This sometimes happens when teacher education courses are planned and taught the same way at a PreK–12 site as on the university campus. Also, there may be no need to provide clinical experiences in all teacher education courses. For example, at Texas Tech University, the children's literature course is seen as a content course in which clinical experiences could be useful but are not essential. Further, some teacher education courses split the time spent on university and PreK–12 campuses.

Recognizing Barriers to University and PreK–12 Connections

Barriers that traditionally separate school and university personnel can be impediments to field-based methods courses. The two types of educators live and work in cultures that differ in terms of priorities and concerns. The reward systems of the institutions differ. Universities have not placed a high value on the professorial involvement in schools needed to design and conduct successful school-based programs. For their part, PreK–12 schools often give low priority to preservice teacher education. Production and use of new knowledge and theory are valued differently. Time demands push everyone involved. Teachers balance their obligations to PreK–12 students with their obligations to preservice teachers. Teacher educators balance their professorial responsibilities in teaching, research, and service with their need to be involved in the life of PreK–12 schools.

The programs described in this report, however, provide evidence that the barriers are not insurmountable. When teacher educators and PreK–12 educators work closely together, they typically find the process energizing and conducive to professional growth. They gain an appreciation for the work of their colleagues in the other type of institution and find that they have much to learn from those colleagues. The removal of the barriers and the resulting atmosphere of professionalism yield an environment rich in opportunities for the professional growth of all involved.

CONNECTING TO THE TORTOISE

Goodlad (1997, July 9) asserts what seems unquestionable: "We know enough to have good schools everywhere" (para. 7). He argues, though, that "most of this knowledge and insight lies fallow" (para. 8). In describing the complex array of circumstances that has contributed to this fallowness, he singles out "the increasing isolation of colleges of education from both the schools and the rest of the university" and "the emergence of a university reward system favoring research but not teaching or service or the popularization of research." Noting the

"separation of research productivity in education from research dissemination and utilization," he argues that it was exacerbated by the way that "preservice education of teachers was controlled from without and hobbled within the university" (para. 8).

Making Progress

It is difficult to refute Goodlad's arguments. However, the programs described in this report warrant some optimism. There is a lessening of the isolation noted by Goodlad. Increasingly, teacher educators in Texas are collaborating extensively with PreK–12 educators and other university professors. Rather than using research obligations as an excuse to remain secluded on campus, many Texas teacher educators are finding new opportunities and avenues for meaningful research in PreK–12 settings. Dissemination and use of research also appear to be increasing as PreK–12 educators become both consumers and producers of it. Teacher education in Texas is subject to much external control. However, the funding of the CPDTs and the formation and the early actions of the State Board for Educator Certification suggest that the control of teacher education from without can be used to catalyze and support efforts to improve both preservice and inservice teacher education in a positive but demanding manner.

Believing That Slower Is Faster

It is beyond the scope of this report to assess the success and the effectiveness of the programs and the courses described here. Clearly, professors and PreK–12 educators in Texas are raising questions about how to prepare the next generation of teachers and, in doing so, are working diligently to develop new courses and programs that reflect important reform ideals. This work has not been easy. In assessing the progress of the Coalition for Essential Schools, Sizer (1997) states, "Good teaching and learning are rarely linear, neat, predictable" (para. 8) and are conspired against by the serendipities, the distractions, and the fascinations that crowd into every classroom. He also concludes, "Building communities of responsible people is slow work, worthy of the tortoise" (para. 17). So it is with teacher education in Texas. New learning communities of professors and preservice and inservice teachers are slowly being built. The slowness of the process may breed impatience and continued calls for quick fixes. However, the metaphor "Slower is faster" seems appropriate for use in thinking about how to develop clinical sites and PDSs. Taking time to build relationships where spheres of influences coincide pays off.

Moving like the Tortoise

Clearly, new programs are not emerging in a linear manner, nor are preservice teachers learning the craft of teaching in a linear fashion. Instead, the process is often messy and driven by perceptions, serendipi-

ty, and human interactions. Also, the results are uneven, and change may be more at the level of the individual professor or course than at the level of the program. For example, a methods course that is a full embodiment of reform visions may exist in the same program as one or more methods courses that are untouched by reform. Yet progress is being made. The stand-alone, campus-based methods course is disappearing. There is a change in thinking about how and where methods courses should be organized and taught. As noted by Sparks and Hirsh (1997) and by the descriptions in this report, in programs that emphasize "multiple forms of job-imbedded learning" (p. 14), there is a shift in the development of teachers. With this shift the preparation of teachers increasingly is being seen as the joint responsibility of preparation programs and the public schools. The shift to job-embedded learning in PreK–12 settings also is narrowing the gap between what preservice teachers are prepared to do and what they are expected to do. The tortoise sticks out its head and moves forward only when it feels safe. Educators represented in this report are taking risks in order to "walk their talk," and, in doing so, they are developing teacher education courses and programs and collaborative relationships with PreK–12 educators that embody the vision of reform. This risk-taking behavior has been facilitated and nudged along by the creation of the CPDTs and the accompanying expectation that methods courses be field-based. These educators also have been protected and motivated by the belief that what they are doing will help "professionalize" teaching and prepare teachers needed to move America closer to realization of the goal of the National Commission on Teaching & America's Future (1996)—a caring, competent, and qualified teacher for every child.

"The tortoise sticks out its head and moves forward only when it feels safe. Educators represented in this report are taking risks in order to "walk their talk," and, in doing so, they are developing teacher education courses and programs and collaborative relationships with PreK–12 educators that embody the vision of reform."

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